

IN THE SPECIFICATION

Please replace the paragraph beginning at page 4, line 13 with the following amended paragraph:

Because of the drawbacks of organic synthesis, enzymatic synthesis has been devised. It is known that glycosylation proceeds by the step-wise addition of monomers through the action of such enzymes as ~~glyeotransferases~~ glycosyltransferases. The reaction products can be further modified by lysases, acetylases, sulfatases, phosphorylases, kinases, epimerases, methylases, transferases and the like. United States Patent Number 5,308,460 discloses such a step-wise synthesis on an immobilized matrix.

Please replace the paragraph beginning at page 4, line 24 with the following amended paragraph:

The present invention is directed to the production of complex carbohydrates in a production cell. It is here disclosed that certain bacteria, such as *Escherichia coli* Strain K-12, have a core liposaccharide with a terminal heptose. A suitable production cell also contains an enzyme which catalyzes the transfer to the terminal heptose of an acceptor molecule, such as N-acetylglucosamine, to form a "scaffold" upon which ~~glyeotransferases~~ glycosyltransferases add other saccharide monomers to form complex carbohydrates. If an otherwise suitable production cell lacks such an enzyme, the DNA encoding the gene rfe (UDP-GlcNAc:Undecaprenol GlcNAc-1 phosphate transferase) of *Haemophilus influenzae* may be inserted into the production cell. Preferably, production of rfe is enhanced by the presence of the gene products of the gene lsgG. By inserting genes encoding ~~glyeotransferases~~ glycosyltransferases into the production cell, the complex carbohydrates specific to bacteria such as *Haemophilus influenzae*, *Neisseria* spp, *Salmonella* spp and *Escherichia coli* are produced. Mammalian complex carbohydrate such as polysialyl can also be produced.